

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
29 August 2002 (29.08.2002)

PCT

(10) International Publication Number
WO 02/066693 A1

(51) International Patent Classification⁷: **C22B 34/12**,
34/24, B22F 3/11, A61L 27/56, A61F 2/30, C23C 10/30

(21) International Application Number: PCT/NL02/00102

(22) International Filing Date: 18 February 2002 (18.02.2002)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
01200587.2 19 February 2001 (19.02.2001) EP
01202062.4 30 May 2001 (30.05.2001) EP

(61) Related by addition to earlier application or grant:
CU Not furnished (ICA)
Filed on Not furnished

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(81) Designated States (*national*): AE, AG, AL (utility model), AM (utility model), AT (utility model), AU, AZ, BA, BB, BG (utility model), BR (utility model), BY (utility model), BZ (utility model), CA, CH, CN (utility model), CO, CR (utility model), CU (inventor's certificate), CZ (utility model), DE (utility model), DK (utility model), DM, DZ, EC, EE (utility model), ES (utility model), FI (utility model), GB, GD, GE (utility model), GH, GM, HR (consensual patent), HU (utility model), ID, IL, IN, IS, JP, KE (utility model), KG (utility model), KP, KR, KZ (utility model), LC, LK, LR, LS (utility model), LT, LU, LV, MA, MD (utility model), MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL (utility model), PT (utility model), RO, RU (utility model), SD, SE, SG, SI, SK (utility model), SL (utility model), TJ, TM, TN, TR (utility model), TT (utility certificate), TZ, UA (utility model), UG (utility certificate), US, UZ (utility model), VN (utility model), YU (petty patent), ZA, ZM, ZW.

(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI utility model (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

WO 02/066693 A1

(54) Title: POROUS METALS AND METAL COATINGS FOR IMPLANTS

(57) Abstract: The invention is directed to a method of preparing porous metals, as well as to these porous metals *per se*. More in particular the invention is directed to the use of these porous metals in the preparation of medical items, such as implants. The invention further relates to a method of providing a porous metal coating on a substrate, in particular on the surface of a medical item, such as an implant or scaffold for tissue engineering. According to the method of the invention, a polymeric foam is impregnated with a slurry of metal particles, such as titanium, tantalum, titanium alloy or tantalum alloy particles. The impregnated foam is subsequently dried and subjected to pyrolysis and subsequent sintering. Due to the presence of metal hydrides, the formation of undesired compounds, such as metal oxides or nitrides, is avoided.